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Records of birds breeding collected by Dr W. Ansorge in Angola and Gabon

by W. R. J. Dean, M. P. Walters & R.J. Dowsett

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From 1903 to 1909, Dr. W.J. Ansorge (1850-1913, a medical doctor, traveller and author of *Under the African Sun* (1899)), in a series of expeditions, collected a number of birds and their eggs in southern and central Angola, in south-western Gabon, Guinea-Bissau and in the Cape Verde Islands. The major portion of his earlier collections of birds, from 1903 to 1906, went to the Walter Rothschild Zoological Museum at Tring, and subsequently to the American Museum of Natural History (Traylor 1963). Some of Ansorge's earlier collections of birds and eggs from Angola in 1905, and his later collections of birds, from Gabon in 1907, and Angola, Guinea-Bissau and the Cape Verde Islands during 1908 and 1909, went to the British Museum (Natural History) and are now at The Natural History Museum, Tring. Ansorge's collections from Gabon in 1907 (along the lower Ogooué river) were never published (Rand et al. 1959). RJD knows of 84 avian taxa described on the basis of Ansorge's holotypes from these two countries (76 from Angola and 8 from Gabon). Nearly all these specimens are in either The Natural History Museum, Tring (BMNH) or American Museum of Natural History (AMNH). One of Ansorge's earlier collections, about 200 sets of eggs largely from southern Angola and Gabon, is now in the BMNH. Data from this collection were not cited by Pinto (1983), and WRJD was not aware of its existence when compiling the text for the Birds of Angola (Dean 2000). Some, but not all, of these breeding records were listed by Traylor (1963), but often incompletely, either without locality or without date.

A number of the specimens collected by Ansorge provide the only breeding records for some species for Angola, and significantly increase the number of breeding records and dates for others. The records from Gabon are fewer, but do include breeding

records for the poorly-known Long-legged Pipit *Anthus pallidiventris* (for which the eggs have never been described) and several other species of interest.

Angola

RED-BILLED FRANCOLIN Francolinus adspersus

Two clutches, both c/2, collected at Dongoena (17° 01' S, 14° 45' E), Cunene Province, on 11 and 19 April 1906, supplement the breeding data given by Dean (2000).

LESSER MOORHEN Gallinula angulata

c/4 collected at Qué (Qué R.) (14° 28' S, 14° 47' E), Huíla, on 15 January 1906, c/6 collected at Catequero, 19 March 1906, and c/5 collected at Dongoena on 31 March 1906 are the only records of eggs of this species for Angola (Dean 2000).

BLACKSMITH PLOVER Vanellus armatus

c/2 collected at Dongoena on 11 April 1906.

CROWNED PLOVER Vanellus coronatus

A single egg collected at Dongoena on 19 April 1906 is the only record of eggs for Angola (Dean 2000). In Zambia, the majority of 111 records are of laying July to October, and all but four of 76 clutches were c/2 or c/3, so a single egg is probably incomplete (Colebrook-Robjent & Dowsett unpublished).

DOUBLE-BANDED SANDGROUSE Pterocles bicinctus

A single egg, probably an incomplete clutch, collected at Namibe town (15° 12' S, 12° 09' E), Namibe, on 7 May 1906, supplements the sparse data in Dean (2000).

CAPE TURTLE DOVE Streptopelia capicola

Two clutches, both c/2, collected at Dongoena on 28 March and 4 April 1906.

BLUE-SPOTTED WOOD-DOVE Turtur afer

C/2, collected at Dondo, Cuanza Norte (09° 41' S, 14° 25' E) on 23 July 1908 supplements data in Dean (2000). This record was listed by Traylor (1963) without locality.

ROSY-FACED LOVEBIRD Agapornis roseicollis

Four eggs, collected at Catequero (16° 34' S, 14° 54' E), Cunene, on 19 March 1906. Pinto (1983) gave only one breeding record of this relatively common species.

SCHALOW'S TURACO Tauraco schalowi

One egg, no longer intact, taken from the oviduct of a female collected at Chissamba (12° 10' S, 17° 20' E), Bié, on 19 November 1904. The only other records of breeding are a nestling collected on the Luce River, 11 Oct (Bowen 1932), and a juvenile collected at Andulo in November (Pinto 1983).

GREY GO-AWAY-BIRD Corythaixoides concolor

c/1 and c/2 collected 2 April 1906, c/3 collected 19 April 1906 and c/3 collected 21 April 1906 at Dongoena, supplement the breeding records in Dean (2000).

YELLOWBILL (GREEN MALKOHA) Ceuthmochares aereus

A nest collected at N'Dalatando, Cuanza Norte (09° 19′ S, 14° 57′ E) on 6 November 1908. Listed by Traylor (1963). A female collected on the same date at the same locality (BMNH reg. no. 1910.5.6.327) was possibly taken at the nest.

SQUARE-TAILED NIGHTJAR Caprimulgus fossii

Two clutches, both c/2, collected at Benguela town on 14 September and 2 October 1904 respectively, add to the only other egg record for Angola (Braun 1934).

FIERY-NECKED NIGHTJAR Caprimulgus pectoralis

One egg, probably an incomplete clutch, collected at Benguela town, on 25 September 1904, supplements the data in Traylor (1963), Pinto (1983) and Dean (2000).

RUFOUS-CHEEKED NIGHTJAR Caprimulgus rufigena

One egg, probably an incomplete clutch, collected at Benguela town, Benguela, on 19 September 1904. No egg records were given by Dean (2000).

PENNANT-WINGED NIGHTJAR Macrodipteryx vexillarius

Two clutches, both c/2, collected at Benguela town on 22 September 1904, add to the number of egg records given in Dean (2000).

RED-FACED MOUSEBIRD Urocolius indicus

Two single eggs without date, c/2 without date collected at Benguela, and c/3 collected 12 October 1904 at Catumbela, Benguela Province, are the only egg records for Angola.

PURPLE ROLLER Coracias naevius

One clutch of three eggs, collected at Catequero (16° 34' S, 14° 54' E), Cunene Province, on 18 March 1906, is the only breeding record for Angola.

RACKET-TAILED ROLLER Coracias spatulatus

A single egg, doubtless an incomplete clutch, collected at Benguela town (12^o 35' S, 13^o 25' E), Benguela Province, on 13 September 1904. No egg records were given by Dean (2000). Breeding starts in September in Zambia.

RED-BILLED HORNBILL Tockus erythrorhynchus

A single egg, collected at Dongoena on 5 April 1906. Traylor (1963) noted coincidentally that nestlings were collected in the same locality and month.

GOLDEN-TAILED WOODPECKER Campethera abingoni

A single egg collected at N'Dalatando on 4 August 1908. Dean (2000) had no egg records for this common and widespread species.

AFRICAN PITTA Pitta angolensis

A single egg, together with a nest collected at N'Dalatando on 6 November 1908. An adult male (BMNH reg. no. 1910.5.6.454) was collected at the same locality on the same day, possibly at the nest. The egg record was listed by Traylor (1963) without locality.

WIRE-TAILED SWALLOW Hirundo smithii

c/3 collected at Foz do Cavaco on 19 October 1905 is the only record of eggs for Angola (Dean 2000). In Zambia there are egg-laying records for all months January-October, mainly August-October (n = 109).

BLACK CUCKOOSHRIKE Campephaga flava

A single egg, probably an incomplete clutch, collected at Gombo Sassenge (11° 54′ S, 17° 36′ E), Bié, on 3 November 1904, is the only record of eggs for Angola (Dean 2000).

YELLOW-BELLIED GREENBUL Chlorocichla flaviventris

c/2, without date, collected at Benguela. The only definite breeding and egg record for Angola (Dean 2000).

${\bf RUFOUS\text{-}TAILED\ PALM\ THRUSH\ } \textit{Cichladusa\ ruficauda}$

There are few breeding records for this relatively common near-endemic species (Dean 2000). A single egg, probably an incomplete clutch, collected Foz do Cavaco (12° 34′ S, 13° 25′ E), Benguela, on 19 October 1905.

KALAHARI SCRUB ROBIN Cercotrichas paena

c/3, without date, collected at Benguela, is the only definite breeding record (Dean 2000).

GROUNDSCRAPER THRUSH Psophocichla litsipsirupa

c/3 collected at Benguela town on 11 October 1904, and c/3 collected at Caiala, Bié, on 13 October 1904 (locality not given in the accessions register but Ansorge collected at this locality on this day) add to the data given in Dean (2000).

AFRICAN THRUSH Turdus pelios

c/3 collected at N'Dalatando on 8 December 1908 adds to the data given by Dean (2000). This record was listed by Traylor (1963) without precise locality.

KURRICHAINE THRUSH Turdus libonyana

Three clutches, all c/3, collected at Caiala, two on 13 and one on 16 October 1904 (locality not given in the accessions register but Ansorge collected at this locality on these days), add significantly to the egg records in Dean (2000).

LONG-BILLED CROMBEC Sylvietta rufescens

c/3 collected, together with the adult female (AMNH reg. no. 599227) on the Cavaco river, Benguela on 3 November 1905. This adds to the single breeding record of November, without locality, given by Traylor (1963) (possibly the same record, but if so, is not ascribed to Ansorge).

AFRICAN PARADISE FLYCATCHER Terpsiphone viridis

Two eggs collected at Caiala (12° 19' S, 17° 07' E), Bié, on 15 October 1904, provide another record of eggs of this common species. Listed as Rufous-vented Paradise-Flycatcher *Terpsiphone rufocinerea* in accessions register, but this species does not occur at this locality.

${\bf RUFOUS-VENTED\ PARADISE\ FLYCATCHER\ \it Terpsiphone\ rufocine real}$

c/3 collected at N'Dalatando on 2 December 1908, together with an adult female (BMNH reg. no. 1909.8.5.45). provides the only egg record for Angola. Nest in coffee tree about 2 m ("6 feet" on label) from the ground.

BLACK-AND-WHITE SHRIKE FLYCATCHER Bias musicus

c/2 collected N'Dalatando on 13 November 1908 is the only egg record for Angola.

WHITE-TAILED SHRIKE Lanioturdus torquatus

Two eggs collected at Namibe [Mossamedes] on 27 February 1906, together with the adult (AMNH reg. no. 608459). This is the only breeding record for Angola for this fairly common species.

BLACK-FACED BABBLER Turdoides melanops

There are very few breeding records for this fairly common but range-restricted resident of dry woodlands (Maclean 1993, Dean 2000). Three clutches; c/3 collected on 28 March 1906 at Tala Kilau, near Donguena (17° 01' S, 14° 45' E), c/3 collected on 14 April 1906 at Ponangkuma, near Donguena, and c/2 collected on 19 April 1906 at Ponangkuma. The eggs measure 26.1-27.5 x 18.3-19.2 (26.5 x 18.7) and are a rather faded turquoise, with a finely noduled shell surface.

CAPE PENDULINE TIT Anthoscopus minutus

c/5 collected on the Cavaco river, Benguela, on 4 November 1904, together with a male (AMNH reg. no. 683325) is the only egg record for Angola.

AMETHYST SUNBIRD Chalcomitra amethystina

A single egg, probably a complete clutch, collected at Caiala on 14 October 1904, adds to the single record of eggs in Dean (2000).

MARICO SUNBIRD Cinnyris mariquensis

c/2, without date, collected at Benguela town, is the only breeding record for Angola (Dean 2000).

PURPLE-BANDED SUNBIRD Cinnyris bifasciata

Five clutches, each c/2, all without dates, collected at Benguela town.

SUPERB SUNBIRD Cinnyris superba

A single egg collected at N'Dalatando on 30 December 1908 is presumably the record without locality listed by Traylor (1963).

NORTHERN PUFFBACK Dryoscopus gambensis

c/3 collected at N'Dalatando on 12 November 1908 is the only breeding record for Angola.

BROWN-CROWNED TCHAGRA Tchagra australis

A single egg, probably an incomplete clutch, and c/2 collected at Caiala on 14 and 17 October 1904, c/2 collected at Bingondo (12° 04' S, 17° 25' E), Bié, on 21 October 1904, and c/2 without date collected at Benguela supplement egg records in Dean (2000).

BLACK-CROWNED TCHAGRA Tchagra senegala

A single egg, probably an incomplete clutch, collected at Benguela on 2 October 1904, adds another record of eggs of this common species.

FORK-TAILED DRONGO Dicrurus adsimilis

A single egg, probably an incomplete clutch, collected at Benguela town on 10 October 1904. A number of records of eggs are given by Dean (2000)

CAPE GLOSSY STARLING Lamprotornis nitens

A single egg collected at N'Dalatando on 26 October 1908 is the only egg record for Angola. This is presumably the breeding record, without locality, referred to by Traylor (1963).

GREAT SPARROW Passer motitensis

A single egg, probably an incomplete clutch, without date, collected at Benguela town is the only egg record for Angola (Dean 2000).

RED-BILLED BUFFALO-WEAVER Bubalornis niger

Six eggs (two clutches?) and five clutches of three eggs, all collected at Dongoena; c/6 and c/3 on 2 April 1906, and the remainder on 14 April 1904. These are the only records of eggs for Angola (Dean 2000).

SCALY-FEATHERED FINCH Sporopipes squamifrons

Two clutches, c/3 and c/5 collected at Catequero, both on 17 March 1906, and two clutches collected at Humbe (16° 40' S, 14° 55' E), Cunene; c/4 on 23 March and c/3 on 26 March 1906. Dean (2000) had no breeding records at all for this common species.

WHITE-BROWED SPARROW-WEAVER Plocepasser mahali

Two clutches, both c/2, collected at Dongoena on 28 March 1906, supplement breeding data given in Dean (2000).

THICK-BILLED WEAVER Amblyospiza albifrons

A single egg and c/3 collected on 22 December, and $2 \times c/3$ on 30 December, all at N'Dalatando, add to the breeding data given by Dean (2000).

BLACK-NECKED WEAVER Ploceus nigricollis

A single egg collected at N'Dalatando on 21 December 1908 provides the only egg record for Angola for this not uncommon species. No definite breeding records for this species were given by Dean (2000).

SOUTHERN MASKED WEAVER *Ploceus velatus*

Four clutches collected at Chibemba (15° 46' S, 14° 04' E), Huíla, on 2 March 1906, six clutches collected at Kimakua (between Cahama and Humbe) (16° 30' S, 14° 25' E), Namibe, all on 14 March 1906; four clutches collected at Tuandiva (16° 32' S, 14° 44' E), Cunene, on 16 March 1906; one clutch collected at Humbe on 23 March 1906; one clutch collected at Dongoena on 31 March 1906. These supplement the already fairly extensive list of breeding records in Dean (2000).

RED BISHOP Euplectes orix

Two clutches, c/2 and c/3, both collected at Humpata (14° 57' S, 13° 16' E), Huila, on 16 February 1906, and two clutches, c/3 on 26 March 1906 and c/4, without date, collected at Humbe, supplement the fairly extensive list of breeding records in Dean (2000).

BLUE WAXBILL Uraeginthus angolensis

Five clutches; c/5, without date, collected at Humpata; c/6 collected at Catequero on 19 March 1906; c/5 collected at Humbe on 26 March 1906; and two clutches collected at Dongoena, c/1 on 31 March and c/3 on 14 April 1906. No breeding records for this common species were given by Dean (2000).

BLACK-THROATED CANARY Serinus atrogularis

C/3, and two single eggs, probably incomplete clutches, all collected at Humpata on 15 February 1906, and a single egg from the same locality on 26 March 1906 are the only definite breeding records for this species (Dean 2000).

GOLDEN-BREASTED BUNTING Emberiza flaviventris

C/2 collected at Gombo Sassenge on 2 November 1904 supplements the only other egg record (Bowen 1931).

Gabon

HAMERKOP Scopus umbretta

c/5 collected at Ngomo (Ugomo, Ngowo), Ogooué river (00°49'S, 09°58'E) on 9 August 1907.

FOREST FRANCOLIN Francolinus lathami

A single egg, probably an incomplete clutch, collected at Ngomo on 26 August 1907.

AFRICAN JACANA Actophilornis africanus

A single egg, clearly an incomplete clutch, collected at Anda, Lake Azingo (00° 35' S, 10° 02' E) in November 1907.

WATER THICK-KNEE Burhinus vermiculatus

c/2 collected at Lac Onange (= Lac Anengué) (c. $01^{\circ}00$ 'S, $10^{\circ}05$ 'E), on 13 July 1907.

WHITE-FRONTED PLOVER Charadrius marginatus

Six clutches; c/1 collected at Odimba, (Lake Ogamwe, 01°08'S, 10°00'E), on 4 July 1907; c/2 and c/3 collected at Ntungo (Lac Onange), Ogooué river (01°00'S, 10°05'E), 19 July 1907; c/2 collected at Lake ("Elivã") Elvolo (Lac Onange, Ogooué river, 01°00'S, 10°05'E), 24 July 1907; c/2 and c/3 collected at Ngomo on 12 August 1907.

WHITE-HEADED PLOVER Vanellus albiceps

Five clutches; two c/3 collected at Odimba, Lake Ogamwe, on 2 July 1907; c/3 collected at Lac Onange, Ogooué river, on 5 July 1907; c/3 collected at Odimba, Lake Ogamwe, on 3 July 1907; c/3 collected at Ntungo on 17 July 1907.

LITTLE TERN Sterna albifrons

Ten clutches, 5 x c/2, 4 x c/3, c/4, all collected at Ngowo (i.e. Ngomo) on the Ogooué river on 12 August 1907. Clutches of more than three eggs are unusual in West Africa and this suggests that some of these eggs were incorrectly labelled. [c/3 is not unusual in W Africa, *pace* Urban *et al.* (1986), see, e.g. Hutson & Bannerman (1931),

Latour (1973)]. MPW examined these eggs and is of the opinion that the c/4 is not a clutch, but could be either four odd eggs or a c/3 with an egg from another clutch, either through egg-dumping in the nest, or a mix up when the eggs were accessioned by the museum. Three of the eggs are just similar enough to be the product of one female, but the 4th egg is markedly different, darker in ground colour and rounder in shape.

AFRICAN SKIMMER Rynchops flavirostris

Seventeen clutches, 5 x c/1, 7 x c/2, 5 x c/3, all collected at Ngowo on the Ogooué River, on 12 August 1907.

RED-EYED DOVE Streptopelia semitorquata

c/2 collected at Ntungo, Lac Onange, Ogooué river (probably Ogouma (Agouma) town, Nkomi river, 01° 32' S, 10° 11' E), on 17 July 1907.

GIANT KINGFISHER Megaceryle maxima

c/3 collected at Ngomo, on 10 August 1907.

PIED KINGFISHER Ceryle rudis

c/2 and c/5 collected on 19 July 1907, and c/4 collected on 26 July 1907 together with the adult (AMNH reg. no. 635841), all at Lac Onange, Ogooué river. Locality for the eggs given as Ntungo, Lake Owange (= Lac Onange), Ogooué river, but locality on the skin is given incorrectly as "Ulales Eliva Zango, Ogone River".

BLUE-BREASTED BEE-EATER Merops variegatus

C/3 and 3 x c/4 collected at Lac Onange, Ogooué river, all on 23 August 1907. One female (AMNH reg. no. 600138) was collected together with the eggs, which have since disappeared from the BMNH collection.

GREY-RUMPED SWALLOW Pseudhirundo griseopyga

Four clutches, all c/2, collected at Ntungo, Lac Onange, on 23 July 1907; c/3 collected at Munjue River (Lac Onange, Ogooué river), on 2 August 1907.

WHITE-THROATED BLUE SWALLOW Hirundo nigrita

Two clutches; c/2, without date, collected at Ngome; c/3 collected at Lake ("Elivã") Elvolo (= Lac Onange, Ogooué river), on 4 August 1907.

AFRICAN PIED WAGTAIL Motacilla aguimp

A c/3 collected at Ntungo, on 23 July 1907.

LONG-LEGGED PIPIT Anthus pallidiventris

C/2 collected at Ntungo, Lake Onange, on 23 July 1907, and c/3 collected at Lac Onange, Ogooué river, on 6 August 1907. The incubating adults (AMNH reg. nos

571651 and 571652) were collected from both nests. The eggs of this species have never been described, and are pale greyish to buffy white, rather densely speckled all over with dark brown and slate grey speckles and streaks. One clutch is markedly paler than the other, with the markings much more streaked. Only one egg from the clutch of two eggs (BMNH reg. no. 1941.7.9.120) is intact and it measures 22.6 x 16.3 mm. The eggs in the clutch of three (BMNH reg. no. 1941.7.9.120) are rather rounded and measure 20.7 x 15.8 mm, 20.9 x 15.8 mm and 21.0 x 15.7 mm. The only other breeding records known are of a nest with one young and an infertile egg on 7 January 1954 at Bolombo, Democratic Republic of Congo (formerly Zaïre) (Demey *et al.* 2000) and a clutch of three eggs found by RJD and F. Dowsett-Lemaire in Odzala N.P., Congo-Brazzaville, on 12 August 1994, but not collected.

YELLOW-THROATED GREENBUL Chlorocichla flavicollis C/2 collected at Anda, Lac Azingo, on 7 December 1907.

WINDING CISTICOLA *Cisticola galactotes* C/3 collected at Lac Onange, Ogooué river, on 15 July 1907.

CASSIN'S FLYCATCHER Muscicapa cassini

Two clutches, c/2 collected at Lambaréné (00°41'S, 10°12'E), on 30 August 1907, and c/2 collected at Lake Assebe (probably Lac Esseb, 00°30'S, 09°32'S) on 8 January 1908. At Makokou it breeds November-March (31 nests), especially January-February (Brosset & Erard 1986), but there is a September record from the Kouilou in Congo-Brazzaville (Dowsett-Lemaire & Dowsett 1991).

AFRICAN PARADISE FLYCATCHER *Terpsiphone viridis* C/2 collected at Lac Onange, Ogooué river, on 29 July 1907.

BROWN SUNBIRD Anthreptes gabonicus

A single egg, perhaps a full clutch, collected at Lake Ogamewe (Ogemwé lac (Ogamwe, Ogewa), Ogooué river, 01°08'S, 10°00'E), on 15 June 1907, together with an adult male (AMNH reg. no. 686275) (noted on skin label) but the locality on the skin is given as Umpokosa (Ngomo) Ogooué river (01°08'S, 10°00'E).

VIOLET-TAILED SUNBIRD *Anthreptes aurantium* C/2 collected at Anda, Lac Azingo, on 24 December 1907.

${\bf CARMELITE~SUNBIRD~\it Chalcomitra~fuliginosa}$

C/2 collected at Anda, Lac Azingo, on 7 December 1907, and a single egg collected at Lac Onange, Ogooué River, on 16 July 1907.

REICHENBACH'S SUNBIRD Anabathmis reichenbachii

A single egg (possibly a full clutch), and c/2, both collected at Abanga River, Ogooué river (possibly Ebel-Abanga, 0° 25' S, 10° 36' E) on 4 October 1907.

ORANGE WEAVER Ploceus aurantius

Four clutches, all c/2, collected at Lac Azingo on 13 December 1907. Breeding in Gabon is mainly in the short dry season, December-March (Brosset & Erard 1986).

VIEILLOT'S BLACK WEAVER Ploceus nigerrimus

Two clutches, c/2 and c/4, collected at Lambaréné on 31 August 1907. At least one adult female (AMNH # 123127) was collected together with the eggs.

VILLAGE WEAVER Ploceus cucullatus

Two clutches, c/2 and c/3, collected at Lac Onange, Ogooué River, on 31 July 1907 and 4 August 1907.

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The distribution of guano and bird bones on Ascension Island, South Atlantic Ocean

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Ascension (Fig. 1) is a recent volcanic island some l0 km in diameter, lying at 07° 57°S, l4° 22°W in the central tropical Atlantic, 650 km south of the Equator. When discovered in 1501 it had a poor flora and terrestrial fauna but many breeding seabirds (Stonehouse 1960, Ashmole & Ashmole 2000). Goats were introduced at an early date and doubtless started to destroy the native flora. The destruction of the fauna may have been begun by Black Rats *Rattus rattus*, probably introduced when William Dampier's ship the Roebuck was wrecked in 1701 (Osbeck 1771). If so, it was accelerated by the introduction of Cats *Felis catus* to control them after the island was settled in 1815 (Packer 1968, Ashmole *et al.* 1994).

It has been suggested to us that human predation may also have played a substantial part in causing the disappearance of the larger seabirds from the main island. We are well aware of the role of local people in decimating and exterminating seabird populations in many parts of the world by collecting eggs and birds for food (Feare 1984, Steadman 1995, Nelson 2002) but are not convinced that direct human predation was of great importance on Ascension. Prior to settlement of the island visits by ships were typically short and focused on the collection of turtles (Ashmole & Ashmole 2000: 198). After the Royal Marine garrison was established in 1815 the systematic collection of Sooty Terns *Sterna fuscata* eggs became routine, but we have not found comments on the eating of adult birds. We do not doubt that some birds were taken by marines and their families, but we believe that the exponential increase in the feral cat population established at the same time as the garrison will have had a more profound effect.

Whatever the precise factors involved, by the time of the BOU Centenary Expedition in 1957-59 (Moreau 1962-63) the seabirds were mainly confined to outlying stacks and cliffs, together with a vast colony of Sooty Terns in the south of the main island. Ashmole (1963a), however, found guano and bird bones were still widespread, including two bones of an extinct flightless rail seen by Peter Mundy in